

Amendments to the claims

1-48. (Previously canceled)

49. (Amended) A method for treating [~~or preventing~~] a bone disorder that results in weakened bones, wherein the bone disorder is selected from the group consisting of osteoporosis, osteoarthritis, Paget's disease, osteomalacia, periodontal disease, bone loss resulting from cancer, bone loss resulting from steroid use, and age-related loss of bone mass, comprising the administration of an amount effective for treating [~~or preventing~~] the [a] bone disorder in a patient in need thereof at least one active agent comprising a sequence of at least seven [~~three~~] contiguous amino acids of groups R¹-R⁸ in the sequence of general formula I



wherein R¹ is selected from H [~~;~~] and Asp[~~-, Glu-, Asn-, Aepe (1-aminocyclopentane carboxylic acid), Ala, Me²Gly, Pro, Bet, Glu(NH₂), Gly, Asp(NH₂), and Sue~~],

R² is selected from Arg [~~;~~] and Lys[~~-, Ala, Orn, Citron, Ser(Ac), Sar, D-Arg and D-Lys~~];

R³ is selected from the group consisting of Val [~~-, Ala, Leu,~~] and norLeu [~~;~~ Ile, Gly, Pro, Aib, Aepe and Tyr];

R⁴ is selected from the group consisting of Tyr [~~-, Tyr(PO₃)₂, Thr, Ala, Ser,~~] and homoSer [~~and azaTyr~~];

R⁵ is selected from the group consisting of Ile, Ala, and Leu [~~-, norLeu, Val and Gly~~];

R⁶ is [~~selected from the group consisting of~~] His [~~-, Arg or 6-NH₂-Phe~~];

R⁷ is [~~selected from the group consisting of~~] Pro [~~or Ala~~]; and

R⁸ is [~~selected from the group consisting of~~] Phe [~~-, Phe(Br), Ile and Tyr;~~ ~~excluding sequences including R⁴ as a terminal Tyr group,~~] or is absent.

50-53. Canceled

54. (Previously amended) The method of claim 49 wherein the active agent comprises an amino acid sequence selected from the group consisting of SEQ ID NO:18.

55-56. (Previously canceled)

57-61. Canceled

62. (Previously amended) The method of claim 49 wherein the active agent consists of an amino acid sequence selected from the group consisting of SEQ ID NO:18.

63-64. (Previously canceled)

65. (Previously added) The method of claim 49 wherein the active agent does not consist of SEQ ID NO:1.

66. Canceled

67. (New) The method of claim 49 wherein R8 is absent.

68. (New) The method of claim 49 wherein the bone disorder is osteoporosis.

69. (New) The method of claim 49 wherein the bone disorder is osteoarthritis.

70. (New) The method of claim 49 wherein the bone disorder is Paget's disease.

71. (New) The method of claim 49 wherein the bone disorder is osteomalacia.

72. (New) The method of claim 49 wherein the bone disorder is osteomalacia.

73. (New) The method of claim 49 wherein the bone disorder is periodontal disease.

74. (New) The method of claim 49 wherein the bone disorder is bone loss resulting from cancer.

75. (New) The method of claim 49 wherein the bone disorder is age-related loss of bone mass.